

REMARKS/ARGUMENTS

Introduction

5 The Office Action rejects claims 10-18 under 35 USC § 112, as failing to comply with the written description requirement.

The claimed limitation “and not having a diameter greater than two inches” has been deleted from claims 10 and 15, in the amendments to the specification, of the response filed January 12, 2005..

10 Appendix 1 of this amendment provides a definition of the nouns “patch”, “strip”, and “thimble” and the standard usages of these terms are discussed under Remarks.

Appendix 2 of this amendment provides information on “Difficulties of Throwing and Catching the Official Football”, discussed under Remarks.

15 The Office Action rejects claims 10-18 under 35 USC § 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 12, 13, 17 and 18 have been amended to remove reference to the trademark, VELCRO.TM.

20 Claims 10 and 15 have been amended to delete “the” in the limitation “the fingerpads”.

The claims have been amended to more clearly separate structural elements and claims (claims 10-18) and method elements and claims (claims 19-28). All elements of all claims are supported in the specification.

25 The Office Action rejects claims 15-18 under 35 USC § 102 as being anticipated by Turangan (5,316,294).

The Office Action rejects claims 10-14 under 35 USC § 103 as being unpatentable over Turangan (5,316,294) in view of Rudell (5,195,745).

Applicant respectfully requests reconsideration and withdrawal of these objections, on the basis of the remarks and arguments presented below.

30

The Objections to the Specification and Claims Rejection Under § 112

Applicant respectfully acknowledges and accepts the guidance provided regarding the written description requirement. The claims 10 and 15 have been amended to remove the limitation “and not having a diameter greater than two
5 inches” in the amendments to the specification, of the response filed January 12, 2005.

Applicant respectfully acknowledges and accepts the guidance provided by the Office Action with respect to proper usage of trademarks, and the identification and description of goods associated with a Trademark or Trade
10 Name. The specification and claims have been amended to conform with proper usage, and to define the invention more particularly and distinctly.

The Office Action states that there is insufficient antecedent basis for the limitation "the fingerpads" recited in lines 6-7 of Claim 10 and line 7 of Claim
15 15. Claims 10 and 15 have been amended to delete “the” from the limitation “the fingerpads”.

Applicant respectfully submits that the specification and claims, as amended, now comply with Section 112, and requests reconsideration and withdrawal of this objection.

The Claims Rejection Under 35 USC § 103 and § 102

20 **Background and Need for the Present Invention**

The present invention is in the field of a sports training aid, specifically a device which aids the training of a player of the official sport of American football to properly support a football upright on the ground, with the index
25 finger of one hand, while another player kicks it, the overall action being termed a place-kick.

The intended use of this device, and of other sports training devices, is to aid players in acquiring skills which are needed to perform specific actions in an official team sport such as American football, under standard rules and scoring with official supervision, on a standard playing field, using a standard football
30 and other playing equipment, and without the use of such aids in the performance of these actions during actual play.

The teaching and training of these specific skills is typically under the direction of a physical education teacher or athletic coach, and one of ordinary skill in the art related to the present invention would be such a teacher or coach.

The skills required to successfully perform specific actions in the sport of American football (for example, throwing, catching, punting, drop-kicking, place-kicking and running with the football) are specific to the action. Certain actions are made difficult by the size, shape and other features of the standard American football; the actions of throwing and catching in particular are made difficult by the size, shape and other features of the standard football in relation to the size of the human hand, particularly for the younger and smaller players.

There is a need for teaching and training aids to facilitate acquisition of skills needed for throwing and catching the official American football, due to these difficulties, as shown in Appendix 2, "Difficulties of Throwing and Catching the Official Football". However, the references cited in the current Office Action as prior art do not disclose or claim devices primarily designed as such training aids.

The primary skills required to successfully perform the action of supporting the standard American football during a place-kick are distinct from the skills required for throwing or catching the football, or performing other actions of the sport.

Supporting the standard football during a place-kick does not involve grasping or gripping the football; the football is placed on the ground and the upper pointed end is supported by a single index finger of the player. The downward force must be adequate to maintain the position of the football, but not so great as to retard the flight of the football. And, since the support is provided by the ground and a single finger of the player, and not by grasping or gripping the football, the size and shape of the standard football do not present significant difficulties to players, even small or young players.

Since a successful, accurate place-kick can result in a score, it is important that the support of the player's index finger be accurately located and steady, and that the support not be removed before the impact of the kicker's

shoe. However, the action of the kicking player is to run towards the supported football and to deliver a forceful kick, and the natural reflex tendency of the player supporting the football is to withdraw the supporting arm and hand. In a game, the player supporting the football is also subjected to great pressure, including time pressure. Members of the opposing team are allowed to rush the player as soon as the football is passed to the player, and training in accuracy of supporting the football facilitates successful performance in the face of such pressure.

Intended Use of the Present Invention

Therefore, the intended use of the present invention, a combination device, is disclosed in claim 10 of the response of Jan. 12, 2005, and **has two distinct components:**

“whereby said mating of said complementary fastener elements urges a user

(1) “to properly support said football, for kicking by another player, at said patch **only** at said upper end by a user's fingerpad within said thimble, and

(2) “to continue supporting said football until the kicking action has been completed.”

(Parenthetical numbers and emphasis added)

Further, it is an object of the invention to “provide a training aid, as aforesaid, which does not interfere with normal game play” (Par. 0006, amended application of first response)

A crucial component of effective teaching and training is to focus on one topic or action at a time, distinct from other topics or actions which can distract from the necessary focus. For example, teaching a piano student to play with the left hand might be facilitated by devices covering the portion of the keyboard used by the right hand, and covering the portion of the musical score to be played by the right hand. A student **could** use the unmodified piano and musical score to play with the left hand, but that would not be related to the use

of the training devices, and would be dependent on the teacher to urge such focused action.

The present invention, as disclosed and claimed, is therefore designed to restrict the options available to the player during training, to facilitate the acquisition and retention of the skills noted above. The restriction of the patch on one or both pointed ends of the football, and restriction of the patch to the fingerpad area of the index finger (thimble or glove) provides direct, tactile reinforcement to the player **only** when the index finger supports the football in the desired location.

10 Structural Features Disclosed and Claimed for the Present Invention

In both Fig. 1 and Fig. 2 of the current application, the patch is shown as extending approximately 1/20 of the distance from one pointed end to the other pointed end of the football, on either side, a small fraction of the total distance.

In the figures, the football is shown approximately half-size; 5 inches in linear length and 6 inches in end-to-end length along the outer surface. The patch of fastener material is shown extending approximately 3/10 inch down from the pointed end, or approximately 6/10 inch in diameter.

The linear length of the official football, from one pointed end to the other pointed end, is 11 to 11 ¼ inches (<http://rjccourt85.tripod.com/field.html>). The radius of the patch shown in Fig. 1 and Fig. 2 is thus approximately 0.6 inch, and the diameter of the patch shown is approximately 1.2 inch.

The noun “patch” has a distinct set of meanings. The definitions of “patch” consistently refer to a *small* portion of, or on, a larger area: (Appendix 1)

Applicant argues that the current Office Action is correct in stating “With regards to the patch(s) not having a diameter greater than two inches, as best seen from the figures the diameter of the patch(es) do not appear to be greater than 2 inches” (Office Action, page 7), but is incorrect in stating “The broadest reasonable interpretation of a patch would include a patch as small as 1 mm to the full length of the football.” (Office Action, Page 9)

Obviousness

These considerations illustrate the fact that the skills required to perform specific actions in standard football, and therefore the teaching, training and training devices intended to aid in acquiring and retaining these skills, are highly specific to the action in which the player is being trained. This specialization and compartmentalization even results in individual players often being assigned single actions to perform in the standard sport, for example place-kicking, and the teaching and training is specialized and compartmentalized for the same reason. Physical education teachers and athletic coaches typically regard the separate specific actions, and their teaching and training, as distinct topics.

For these and other related reasons, it may not be obvious to adopt or modify a device or method designed for teaching or training skills required for one specific action in standard football for use in teaching or training skills required for a distinct specific action in the sport, and it is much less obvious to adopt or modify a device or method designed for use in a casual game..

Thus the intended use of the present invention is to aid players of an official team sport, with official rules and equipment, to acquire and retain skills required to successfully perform an action specified by those rules, without such devices, in actual play using the official football. The structural features of the present invention result from this intended use.

Background and Intended Uses of Inventions of the Cited References

In contrast, the intended uses of the invention disclosed and claimed in Turangan (5,316,294) are diametrically opposed to those of the present invention, and largely so in the invention disclosed and claimed in Rudell et al.(5,195,745) The structural features disclosed and claimed for those inventions are also distinct from those of the present invention.

There is a need for teaching and training aids to facilitate acquisition of skills needed for throwing and catching the official American football, due to these difficulties, as shown in Appendix 2, "Difficulties of Throwing and Catching the Official Football". However, the references cited in the current Office Action as prior art are not designed as such training aids.

Turangan is not concerned with skills required in any official sport, but discloses and claims a "game set", specifically intended to be used in a casual "throw and catch" activity by two players, without rules and not requiring specific skills. The "game set" is specifically intended to be used in informal activities among families and friends, not requiring skills. Although involving a modified football, the difficulties of grasping, throwing and catching an object of the size and shape of the standard football are not addressed with a view to increasing the skills of the player in those actions. To the contrary, the need for any skills is removed by the use of adhering complementary fabrics to cover most of the surface of both the modified glove and the modified football. Particular emphasis is given to the features of the "game set" that allow any player to "catch" a thrown modified football, just by extending the modified glove into the path of the modified football; the modified football is intended to adhere to the modified glove even if a small portion of the two objects touch, and even if the modified football touches the back of the modified glove. This action is not directly comparable to the actual catching of an unmodified football by unaided players, which typically requires the use of two hands to retain the football.

The intended use of the "game set" results directly in the structural features disclosed and claimed, which are distinct from those of the present invention. The extreme focus on structural features which facilitate the ability of the players to "catch" the modified football, without acquiring skills, leads to the extensive coverage of the surfaces of the modified football and modified glove, so that the touching of virtually any portions of the two objects will result in adherence.

The intended use and structural features of Turangan are entirely focused on, and limited to, the provision of devices to be used in a simple throw and catch game, to make the acquisition of skills entirely unnecessary, and not to facilitate the skills needed for unassisted performance in an official sport, without use of the devices. Therefore Turangan teaches away from the present invention.

Structural Features Disclosed and Claimed in Turangan

Turangan distinguishes a central, enlarged section of the modified football, and the tapered, pointed ends. The disclosures and claims of Turangan make it clear that the throwing action requires grasping the central, enlarged
5 section of the modified football.

The current Office Action describes Turangan as showing "a football kicking training aid", comprising in combination a football having "at least one attached patch (fastener 43), said patch or patches covering one or both pointed ends of said football...a flexible glove (10) having a plurality of fingers (44),
10 said fingers having lateral areas positioned adjacent the finger pads (hook fasteners 44) of a user wearing said glove....whereby said mating of said complementary fastener elements urges a user to properly support said football."

Applicant respectfully submits that this description omits a crucial limitation of Turangan in claims 1 and 7, "the second material being in the form
15 of a plurality of strips adhered to the outer surface of the football and alternating with the outer surface around the central section of the football, **each strip extending from one end of the football to the other end of the football and having a thickness sufficient to form a raised edge to facilitate gripping the football**" (Col. 4, lines 38-45; Col. 5, line 13-Col 6, line 4) (emphasis added).

20 The present invention claims "A football kicking training aid consisting in combination of:

a football having two tapered ends and a central section progressively enlarged between the two ends, said football having at least one patch attached thereon, **said at least one patch positioned on either of said tapered ends of
25 said football**, said at least one patch having a plurality of male or female mating fastener elements thereon..." (emphasis added).

Applicant respectfully submits that the claimed invention is structurally distinct from Turangan. Applicant also respectfully submits that this structural distinction results from the intended uses of these two inventions.

30 The limitation "each strip extending from one end of the football to the other end of the football" is true for each claim of Turangan, and the limitation

“said at least one patch positioned on either of said tapered ends of said football” applies to each claim of the present invention. The present invention is structurally distinct from Turangan. In Turangan, the “central section progressively enlarged between the two ends” (Turangan, Col 4, lines 35-36; Col 5, lines 10-11) is traversed by “a plurality of strips” of the second material, “having a thickness sufficient to form a raised edge to facilitate gripping the football” (Col 4, lines 38 and 44-45; Col 5, line 14; Col 6, lines 3-4).

In the present invention, the patch or patches of the fastener material cover only one or both pointed ends, and the central section of the football is devoid of fastener material.

The noun “strip” has a set of meanings distinct from the meaning of “patch”, consistently referring to a *long* structure. (Appendix)

Applicant respectfully submits that the structurally distinct claims of the present application, as submitted, are patentably distinct from the claims of Turangan and all other prior art.

The Invention of Turangan Cannot Be Used To Serve the Intended Use of the Present Invention

The current Office Action states “With regards to the limitation ‘...said patch only at said upper end...’ as best understood, the Turangan device could be contacted only at the upper end if the user so chooses.” (Office Action page 5) and “If the prior art structure is capable of performing the intended use, then it meets the claim.” (Office Action pages 6, 7 and 8).

Applicant respectfully submits that the present invention has two distinct components of intended use:

“whereby said mating of said complementary fastener elements urges a user

(1) “to properly support said football, for kicking by another player, at said patch **only** at said upper end by a user's fingerpad within said thimble, and

(2) “to continue supporting said football until the kicking action has been completed.”

(Parenthetical numbers and emphasis added)

The Turangan device is not capable of performing the first component of the intended use, which is to urge the user to support the football **only** at the football's upper end, by the limitation of the patch to one or both pointed ends,
5 in combination with the limited area of the patch on the thimble or glove.

The Turangan football is covered over most of its surface, and specifically by strips extending from end to end of the modified football, by complementary mating fabric. Thus it cannot urge the user to support the football **only** at the football's upper end.

10 In fact, an unmodified football would be as capable as the Turangan football of performing the first component of the intended use, if the test were that the device "could be contacted **only** at the upper end if the user so chooses." The user would instead be dependent on the teacher or coach, rather than the device, to urge this focused action.

15 Further, it is an object of the invention to "provide a training aid, as aforesaid, which does not interfere with normal game play" (Par. 0006, amended application of first response) The coverage of a major portion of the surface of the modified football of Turangan, and specifically the coverage of a major portion of the central, enlarged section of the modified football, would
20 modify the response of the football to the impact of the kicking action, and thus would interfere with the normal kicking action as a part of the training function.
The Present Invention is not Unpatentable over Turangan in View of Rudell et al.

The current Office Action states "In view of Rudell et al. it would have
25 been obvious to select any one of the hand/finger coverings to use with the football of Turangan, since one of ordinary skill in the art, would have expected Turangan's invention to perform equally well with any one of the above finger coverings, because they all perform the same function of protecting the hand and fingers from the football and provide a means for gripping the football.
30 Therefore it would have been an obvious matter of design choice to modify Turangan to obtain the invention specified in claim 10."

Applicant submits that the present invention is patentably distinct from Turangan, and that it would not have been obvious to modify Turangan to obtain the present invention.

Structural Features Disclosed and Claimed in Rudell et al.

5 The invention of Rudell et al. is primarily intended for use as a casual game, similar to Turangan. The throwing and throwing aid objects are designed specifically to facilitate the spinning of the thrown object, which stabilizes the flight of the thrown object.

 The current Office Action states "...Rudell et al. shows that the patch(es)
10 is positioned on the object so that when the object is held in typical fashion, there is interaction between the VELCRO on the glove and the VELCRO on the object. It is unclear how the applicant came to the conclusion that it teaches away from placing the VELCRO patch on the tip(s). In the event the ball of Rudell et al. was used in kicking practice, then it appears that the VELCRO
15 patch would have been positioned on the tip(s)..." (Office Action, pages 9 and 10)

 Applicant submits that the more complete disclosure of Rudell et al. states "The invention is so designed that when the object is held in typical fashion **prior to being thrown**, there is interaction between the VELCRO on
20 the glove and the VELCRO on the object." (Col 2, lines 57-61) Further, Rudell et al. claim "...a receptor site located on the surface of said airborne throwing projectile in the area thereof which is grasped by a thrower, and..." (claim 1) and "...a receptor site of a first fabric located on the surface of said airborne throwing projectile **in the area thereof which is grasped by a thrower**, and..."
25 (claim 26; emphasis added).

 Applicant submits that Rudell et al. disclose and claim only combinations that are designed and used in grasping and throwing objects. The football cannot be grasped or thrown by its tapered ends, but only by its enlarged central section, as shown by the result, "...thereby causing the object to
30 spin as it leaves the thrower's hand..." (Col 2, lines 64 and 65). The "receptor site" is shown as located on the surface of the throwing projectile "in the area

thereof which is grasped by the thrower”, clearly shown in the figures as only in the enlarged central section of the modified football.

Thus, Rudell et al. teaches away from the present invention, as being solely concerned, in the case of the football as the throwing object, with grasping the football in the enlarged central section, and locating the “receptor site” in that region for the purpose of facilitating the grasping of the football to impart a spin..

It would not be obvious to one of ordinary skill in the art to modify Rudell et al.’s throwing object, to locate a small patch on the pointed end of the football, and to use it not to grasp and throw the football, but to support it on the ground for kicking training. Applicant submits that such a modification would represent hindsight, rather than an obvious modification of prior art.

The current Office Action states “The broadest reasonable interpretation of a thimble would include the finger band taught by Rudell et al.” Applicant submits that the accepted meaning of a thimble, as an object placed on a finger, is that of a cup-shaped device (Appendix 1) and therefore that the broadest reasonable interpretation of a thimble would not include the finger band taught by Rudell et al.

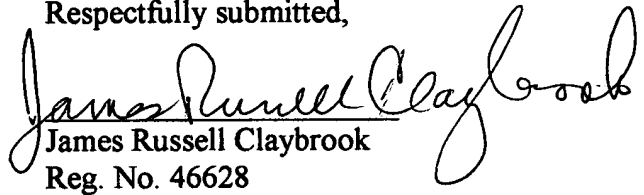
Applicant respectfully requests reconsideration and withdrawal of these objections, on the basis of the remarks and arguments presented below.

Conditional Request For Constructive Assistance

Applicant has amended the specification and claims of this application so that they are proper, definite, and define novel structure which is also
5 unobvious. If for any reason this application is not believed to be in full condition for allowance, Applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

10

Respectfully submitted,


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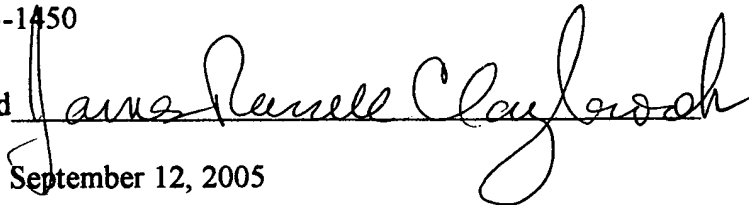
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APPENDIX 1

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Definitions Of Terms

The Free Dictionary

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I. "Patch": <http://www.thefreedictionary.com/patch>

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II. "Strip": <http://www.thefreedictionary.com/strip>

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III. "Thimble": <http://www.thefreedictionary.com/thimble>

I. "Patch": <http://www.thefreedictionary.com/patch>

- n.
1.
 - a. A small piece of material affixed to another, larger piece to conceal, reinforce,
5 or repair a worn area, hole, or tear.
 - b. A small piece of cloth used for patchwork.
 2. A small cloth badge affixed to a garment as a decoration or an insignia, as of
a military unit.
 3.
 - 10 a. A dressing or covering applied to protect a wound or sore.
 - b. A pad or shield of cloth worn over an eye socket or an injured eye.
 - c. A transdermal patch.
 4. See beauty spot.
 5.
 - 15 a. A small piece, part, or section, especially that which differs from or contrasts
with the whole: a patch of thin ice; patches of sunlight.
 - b. A small plot or piece of land, especially one that produces or is used for
growing specific vegetation: a briar patch; a bean patch.
 6. An indefinite period of time; a spell: weathered a difficult patch after losing
20 his job.
 7. A temporary, removable electronic connection, as one between two
components in a communications system.
 8. Computer Science A piece of code added to software in order to fix a bug,
especially as a temporary correction between two releases.
25

II. "Strip": <http://www.thefreedictionary.com/strip>

- n.
1.
 - 30 a. A long narrow piece, usually of uniform width: a strip of paper; strips of beef.
 - b. A long narrow region of land or body of water.
 2. A comic strip.
 3. An airstrip.
 4. An area, as along a busy street or highway, that is lined with a great number
35 and variety of commercial establishments.

III. "Thimble": <http://www.thefreedictionary.com/thimble>

- n.
- 40 1. A hard pitted cup worn for protection on the finger that pushes the needle in
sewing.
 2. Any of various tubular sockets or sleeves in machinery.
 3. Nautical
 - a. A metal ring fitted in an eye of a sail to prevent chafing.
 - 45 b. A metal ring around which a rope splice is passed.

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APPENDIX 2

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Difficulties of Throwing and Catching the Official Football

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Difficulties of Throwing and Catching the Official Football

The primary difficulties of throwing and catching the unmodified football arise from the large size, the shape and other physical features of the regulation football, in relation to the human hand.

The size of the standard, official football is 10.9 to 11.4 inches in length, 20.75 to 21.25 inches in circumference at its widest spot and 27.75 to 28.5 inches in circumference, measured around its pointed ends (NCAA). Its weight is 14-15 oz., and it is inflated with air to a pressure of 12.5-13.5 lb. per square inch, is smooth and hard, not deformable, and cannot be fully grasped by the pointed ends or any other portion

The size of the extended average adult human hand is approximately 9 inches from the tip of the thumb to the tip of the opposite finger () and, of course, the size of the hand of younger players is smaller.

The size of the adult human hand allows a much smaller object, such as a baseball, to be fully grasped by one hand, that is to be firmly held by extending the thumb and fingers more than half-way around the circumference of the object. However, the adult hand of 9 inches width can only extend over approximately 40% of the circumference of the standard, official football.

As a result of this relationship between the size and shape of the regulation football, and the average size and size range of human hands, the football generally cannot be securely grasped by one hand, and the recommended techniques for the actions of catching and punting are to use two hands, and for the action of throwing (passing) to cradle the football in one hand with the fingers positioned on the laces of the football.

The relative scale of the regulation football and the adult hand (at least average in size), and a recommended grip in preparation for passing, are shown in the following photograph:



A clear understanding of these factors is important as a basis for concluding, for example, whether the actions of grasping, holding or gripping a football can be fully understood under specific conditions.

For example, the relative scale of the regulation football and the adult hand is not shown correctly in the figures of Turangan (the hand is shown relatively smaller in all figures), and the hands are shown too large in relation to the football in the figures of Rudell et al ()

As a result of these facts, the standard, official football requires considerable distinct skills for successful throwing, passing and punting, each separate action requiring a distinct set of skills.

"For example, the skills required for preparing to throw (pass) are illustrated in the sequence accompanying the above photograph:

"Gripping The Football

1. Place your index or pointer finger near the tip of the ball off the laces and across the seam of the ball.
2. Place your middle and third finger across the laces with the finger tips of these two fingers on the surface of the ball.
3. Place your little finger on the laces of the ball-it should just reach.
4. Make sure you feel the pressure between the ball and your passing hand just behind the center point on the back of the ball.

"TECHNIQUE

"Make sure you are standing tall with both feet under your hips. Hold the ball securely in both hands, chest high.

A common feature of these actions and skills is that, to be handled securely, the football must be grasped by the enlarged central section. The football cannot be securely grasped by the pointed end sections by players, certainly not by players with average or smaller hands, nor by players with less than average skills or dexterity.

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